REPLACEMENT CLAIMS

sub G1

73. (Three Times Amended) A memory device comprising:

a semiconductor substrate including a plurality of doped active regions;

a field isolation region separating at least two of said active regions, said field isolation region including an isolation trench, said isolation trench further including a first area filled with a first dielectric material forming at least sidewalls of said isolation trench, and a second area filled with a second dielectric material situated within said sidewalls, said first dielectric material being different than said second dielectric material; and

F1

an ion implanted region provided below said second area having an increased doping concentration in an area of said substrate between said separated active regions, said increased doping concentration being higher than a doping concentration of said area of said substrate, wherein substantially all ions from said ion implanted region which increase said doping concentration are displaced away from said active regions by a distance at least equal to a sidewall thickness of said first area filled with said first dielectric material, and wherein the sidewall thickness of said first area is less than about forty percent the width of the isolation region.

F2/sub G1

56. (Amended) The memory device of claim 73, wherein the first dielectric material has a thickness of at least about one hundred angstroms.